



The LEADERSHIP WE NEED

Using Research to Strengthen the Use of Standards for Administrator Preparation and Licensure Programs

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ver the past decade, the principal's role as instructional leader has been increasingly recognized as a critical factor for improving student achievement. During this time, a number of organizations have initiated discussions about the knowledge, dispositions, and performances of effective school leaders. In the mid-1990s, for example, the Council of Chief State School Officers (CCSSO) formed the Council's Interstate School Leaders Licensure Consortium (ISLLC) as part of a partnership with the National Policy Board for Educational Administration (NPBEA). Together with other major educational leadership organizations, practitioners, and policymakers throughout the nation, they developed and published a set of model standards reflecting what school leaders should know and understand; what they should be able to do; and what they should believe, value, and commit to (CCSSO, 1996). By the fall of 2004, policymakers in at least 40 states had incorporated the ISLLC standards into principal licensure policies, and additional

states are considering their adoption. Vanderbilt University Professor Joe Murphy, lead author of the ISLLC standards, and other pioneers of a standards-based approach to the preparation of school leaders played significant and important roles in improving the quality and consistency of administrator preparation and licensure policies and practices.

In response to chief state school officers, senior education officials, and other policy leaders requesting research-based guidance to develop or refine principal licensure policies that support the development of principals who positively impact student learning, this brief builds on the work of the consortium by examining the ISLLC standards in light of findings from a recent study of principal leadership conducted by Mid-continent Research for Education and Learning (McREL). These findings were the basis for the development of McREL's Balanced Leadership Framework TM (Waters, Marzano, & McNulty, 2003), which identifies specific leadership responsibilities and practices that are correlated with student

achievement. The purpose of this brief is to highlight the ways in which McREL's research findings add value to the ISLLC standards through (1) increased utility, (2) research-based guidance, (3) identification of what should take primacy, and (4) new insights into change leadership. This brief summarizes the research and theory that undergird the Balanced Leadership Framework and seeks to answer the following overarching question:

 In what ways does the Balanced Leadership Framework compare to and add value to the use of the ISLLC standards for the preparation, licensure, and professional development of school leaders?

Balanced Leadership Framework

creation of quantitative research that investigated the relationship between school leadership and student achievement. What distinguishes the research underlying McREL's Balanced Leadership Framework from other studies of school leadership is the size of the sample, the rigor of the analyses, and the utility of the findings. The framework also reflects key distinctions about change gleaned from our research and extensive review of relevant theoretical literature. In the aggregate, the findings offer straightforward research-based guidance for policymakers, senior education officials, and those involved in the development and preparation of principals.

The Balanced Leadership Framework is based on findings from two separate studies conducted by McREL between 2001 and 2004: a meta-analysis¹ and a factor analysis² (see Appendix for a more detailed discussion of the framework's

underlying findings and theories). Briefly, McREL's leadership research began in 2001 with a review of more than 5,000 studies published since the early 1970s that purported to examine the relationship between school leadership and student achievement. Seventy of these studies met McREL's criteria for inclusion in a meta-analysis. These studies represent a sample of 2,894 schools and approximately 14,000 teachers and 1.1 million students — one of the largest-ever samples for an examination of research on leadership practices. Between July 2003 and May 2004, 652 principals responded to an online survey developed by McREL to collect data on principals' use of the leadership practices identified in the meta-analysis as well as their engagement in change leadership. The results of the survey served as the basis for a subsequent factor analysis that offered additional insights into the meta-analysis findings. During this time, McREL also engaged in an extensive review of the theoretical literature on change, leadership, and the adoption of new ideas.

A number of key findings and theoretical concepts emerged from McREL's meta- and factor analyses that informed the development of the Balanced Leadership Framework, the analysis discussed in this document, and other leadership work being undertaken by McREL:

Principal leadership is significantly correlated with student achievement.
 The average effect size³, expressed as a correlation, is .25. This means that a one standard deviation improvement in principal leadership is associated with a 10 percentile difference in student achievement.

¹Meta-analysis is a comprehensive, systematic, quantitative review of past empirical research studies on a specific topic. For more detailed information on education research, see A Policymaker's Primer on Education Research: How to Understand, Evaluate, and Use it (Lauer, 2003) at http://www.mcrel.org/topics/productDetail.asp?productID=163

²Factor analysis is a statistical procedure that reduces a set of items on a measuring instrument into a smaller number of dimensions called factors (Lauer, 2003).

³Effect size is the measure of the magnitude of impact of an independent variable on a dependent variable. The most commonly used effect size is the "standard mean difference," which states the effect size in terms of the number of standard deviations between the mean of an experimental group and the mean of a control group. The correlation (r) is another type of effect size that is commonly used.

- Twenty-one specific leadership responsibilities, and 66 associated practices, have statistically significant relationships with student achievement.
- Just as leaders can have a positive impact on student achievement, they also can have a marginal or, worse, a negative impact on achievement. This finding is referred to as the "differential impact" of leadership on student achievement.
- Changes with varying implications for stakeholders are positively associated with some responsibilities and negatively associated with others.

Maximizing the Use of the ISLLC Standards

cREL's Balanced Leadership Framework provides research-based guidance to those committed to ensuring that highly effective school leaders are guiding our nation's schools. As noted earlier, a majority of states, in one way or another, are using the ISLLC standards to inform their principal licensure policies. Yet, in spite of their widespread use, in recent years, a number of scholars have criticized the ISLLC standards for a variety of reasons, including their lack of depth, breadth, and research (see, e.g., Murphy, 2003).

To determine the degree to which McREL's research findings included in the Balanced Leadership Framework compare to the ISLLC standards, McREL conducted an initial comparative analysis of the ISLLC standards and the Balanced Leadership Framework. The findings from the analysis add value to policymakers' use of the ISLLC standards in three ways: (1) increased utility, (2) guidance based on quantitative research, and (3) the identification of leadership practices that should take primacy.

Increased utility. For research findings to be useful and accessible to policymakers and practitioners, it is critical to organize and communicate them in ways that make it possible to apply them to policy and practice. For this reason, the organization of the research findings included in McREL's framework is relatively simple. In contrast to the six ISLLC standards that encompass 184 indicators organized around "a common core of knowledge, dispositions, and performances" (CCSSO, 1996, p. iii), the Balanced Leadership Framework includes 21 leadership responsibilities and 66 associated practices (see Exhibit 5, Appendix). The organization and coherence of the leadership responsibilities and practices provide practical and easily accessible guidance for policymakers and practitioners, as shown in the Appendix.

In addition, the 21 leadership responsibilities and 66 practices are relatively straightforward when compared to the 184 indicators in the ISLLC standards. For example, in ISLLC Standard 5, one of the performances reads, "Community stakeholders are treated equitably." In Standard 6, another reads, "Treats people fairly, equitably, and with dignity and respect." Making a distinction between these performances, which are found in two different standards, poses a challenge for both policymakers and practitioners seeking to use them for program design, approval, and licensure. Even more challenging is determining if these performances are grounded in quantitative research on school leadership.

Quantitative guidance. All of the leadership responsibilities in McREL's framework are significantly and individually associated with student achievement. Accordingly, the task of determining which responsibilities and practices are based on research as opposed to theory or professional wisdom is not left to policymakers and practitioners. The explicit connection between principal leadership responsibilities and

student achievement in McREL's framework offers unambiguous research-based guidance.

Although the "explicit goal" of the ISLLC standards was to "reground the profession" [and] 'underscore learning and teaching" (Murphy, 2003, pp. 6 & 26), the standards do not explicitly communicate the critical connection between the standards and improved student learning. Specifically, the research related to each of the ISLLC indicators is not provided. Ten years after their development and publication, Murphy (2003) presented the research base for the strategies underlying the ISLLC standards; his report, however, did not present the research base for each ISLLC indicator or standard. As a result, policymakers and practitioners have not had access to the underlying research to help them determine which of the indicators or standards are positively correlated with student achievement. The Balanced Leadership Framework offers this guidance by identifying leadership responsibilities and practices grounded in quantitative research.

Identifying what should take primacy.

As Elmore (2003) asserts, "Knowing the right thing to do is the central problem of school improvement" (p. 9). School leaders who fail to select the most effective school and classroom practices for their improvement initiatives are not likely to guide their schools in the right direction. In fact, from our analysis, strong but misdirected principals, and policymakers for that matter, can have a diminishing or negative impact on student achievement. Those who approve preparation programs and licensure standards need to focus their policy initiatives on the responsibilities and practices that research indicates will have the largest effect on student achievement. Policies that focus on the use of research in preparation programs and licensure standards can translate into leaders who positively impact student achievement. The findings included in McREL's framework clarify what should take primacy in the ISLLC

standards and offer guidance to policymakers, senior education officials, and practitioners about "the right thing to do."

Although the ISLLC standards reflect the wide range of responsibilities that rest on principals shoulders, they do not offer any indication about which knowledge, dispositions, or performances have a greater impact on student learning than others. This is not to say that the ISLLC indicators are not all important. However, policymakers and program designers face a daunting challenge in determining which leadership practices are positively correlated with student achievement and should take primacy in preparation programs and licensure standards. For example, one could mistakenly assume that knowledge, dispositions, and performances related to the theme of community take primacy in the ISLLC standards over other areas of leadership because there are 36 references to this theme. In the absence of quantitative research, the number of references to specific themes may lead one to assume that some are more important than others, regardless of their effect on student achievement. Likewise, one might assume that the change process is relatively unimportant because there are only two references to it in the ISLLC standards. Not knowing if or which leadership responsibilities take primacy over others may confuse or overwhelm policymakers and practitioners.

Knowing which leadership responsibilities have an impact on student achievement and the degree to which they do so is important information for policymakers interested in developing or refining policies on administrator preparation and licensure. Because the ISLLC standards and the findings included in the Balanced Leadership Framework are more different than alike, a detailed comparison of the two does not result in a one-to-one correspondence. However, on a general level, a comparison of the leadership responsibility *communication* offers an example of how the quantitative findings

in the Balanced Leadership Framework can help policymakers determine what should take primacy in the ISLLC standards. Comparing the three Balanced Leadership practices used to fulfill the responsibility *communication* with the six references to communication in the ISLLC standards illustrates how McREL's research-based leadership practices can clarify what should take primacy in the area of communication. The following ISLLC indicators include references to communication:

- The administrator has knowledge and understanding of effective communication (CCSSO, 1996, p. 10).
- The administrator facilitates processes and engages in activities ensuring that effective communication skills are used (CCSSO, 1996, p. 15).
- The administrator believes in, values, and is committed to collaboration and communication with families (CCSSO, 1996, p. 16).
- The administrator facilitates processes and engages in activities ensuring that high visibility, active involvement, and communication with the larger community is a priority (CCSSO, 1996, p. 17).
- The administrator facilitates processes and engages in activities ensuring that communication occurs among the school community concerning trends, issues, and potential changes in the environment in which schools operate (CCSSO, 1996, p. 21).
- The administrator facilitates processes and engages in activities ensuring that lines of communication are developed with decision makers outside the school community (CCSSO, 1996, p. 21).

Although all of the indicators listed above may be important, there are no data about their relationship to student achievement. In contrast, Waters, Marzano, and McNulty (2003) found that the following Balanced Leadership practices used to fulfill the leadership responsibility communication correlate with student achievement:

- Is easily accessible to teachers and staff
- Maintains open and effective lines of communication with teachers and staff
- Develops effective means for teachers and staff to communicate with one another

This serves as one of many examples of the ways in which the findings from McREL's meta-analysis inform what should take primacy in the ISLLC standards.

Extending the Scope of the ISLLC Standards

In addition to identifying ways in which the Balanced Leadership Framework enhances policymakers and practitioners' use of the ISLLC standards, McREL's comparative analysis offers several other conclusions. First, although elements of many of the 66 Balanced Leadership practices can be found in the 184 ISLLC indicators, we found very few cases of a one-toone correspondence of a leadership practice and an indicator. Second, there is evidence of many additional non-explicit associations between the ISLLC indicators; these associations require analysis beyond the scope of the examination conducted for this brief. (That level of analysis is available from McREL, however, for states interested in gaining a deeper understanding of the relationship between the individual Balanced Leadership practices and the ISLLC indicators.) Third, although some aspects of the practices can be found in the ISLLC indicators, we found no evidence of 17 of the 66 Balanced Leadership

practices (see Exhibit 1). In other words, more than a quarter of the research-based Balanced Leadership practices are not reflected in the ISLLC indicators. This finding has particular implications for those who are currently using the ISLLC standards to guide their policymaking and decision-making processes; it also has particular implications for those interested in incorporating research-based practices into administrator preparation, licensure, and professional development programs.

The previous section addressed ways in which McREL's meta-analysis contributes to the use of ISLLC standards by policymakers and program designers. This section presents both the results of McREL's factor analysis and an interpretation of the results which reinforce the importance of the principal's ability to lead changes that are needed to dramatically improve the performance of America's schools.

Effective change leadership. Effective school leadership requires that principals use practices that are positively associated with student achievement. The goal of leaving no child in the United States behind necessitates that school leaders also have the knowledge and skills to lead change effectively. The existing education system must be changed radically in order for all students to meet challenging standards. To make the kind of changes needed in education today, however, school leaders must have a sophisticated understanding of change and know how to effectively initiate, lead, and sustain changes that have varying implications for different stakeholders. In this sense, effective change leadership requires an understanding of the change process beyond what is offered in the following ISLLC standards:

 The administrator has knowledge and understanding of the change process for systems, organizations, and individuals (CCSSO, 1996, p. 12). The administrator has knowledge and understanding of models and strategies of change and conflict resolution as applied to the larger political, social, cultural and economic contexts of schooling (CCSSO, 1996, p. 20).

Acquiring the knowledge and gaining the skills referred to in these standards is critical. However, the Balanced Leadership Framework provides additional insights into the knowledge and skills essential to effective change leadership. Specifically, two conclusions from McREL's research serve to inform and guide principals and those who support them. The first conclusion, developed from an extensive review and interpretation of the theoretical literature on change, highlights the importance of the "magnitude of change," or the implications that changes have for different stakeholders. A second conclusion, derived from a factor analysis, focuses on specific leadership responsibilities associated with leading change with first- and second-order implications. This section describes these findings.

The concept of the "magnitude of change" was derived from the change literature, which generally describes two types of changes: first order and second order. First-order change can be described as "business as usual," whereas second-order change breaks with the way things have been traditionally done. McREL's Balanced Leadership Framework, however, assumes that the implications of a change vary in magnitude based on the perceptions of individuals. This view differs from common understandings of change in that it recognizes the differing ways in which change affects different stakeholders.

In general, change might be considered to be first order when most stakeholders view the change as a continuation of the past and generally in line with their existing perspectives. Conversely, change might be considered to be second order when most stakeholders view the change as a break with the past and in conflict with their

Exhibit 1. McREL's Balanced Leadership Practices Not Found in the ISLLC Standards

Responsibility	Definition The extent to which the principal	Associated Practices
Affirmation	recognizes and celebrates school accomplishments and acknowledges failures.	Systematically and fairly acknowledges failures and celebrates accomplishments of the school
Contingent rewards	recognizes and rewards individual accomplishments.	 Uses hard work and results as the basis for reward and recognition Uses performance vs. seniority as the primary criterion for reward and advancement
Curriculum, instruction, & assessment	is directly involved in the design and implementation of curriculum, instruction, and assessment practices.	 Is involved with teachers in designing curricular activities and addressing instructional issues in their classrooms Is involved with teachers to address assessment issues
Flexibility	adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.	 Adapts leadership style to needs of specific situations Can be directive or non-directive as the situation warrants
Outreach	is an advocate or spokesperson for the school to all stakeholders.	 Interacts with parents in ways that enhance their support for the school Ensures that the central office is aware of the school's accomplishments
Relationship	demonstrates an awareness of the personal aspects of teachers and staff.	 Remains aware of the personal needs of teachers and staff Acknowledges significant events in the lives of teachers and staff Maintains personal relationships with teachers and staff Is informed about significant personal issues in the lives of teachers and staff
Situational awareness	is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.	Can predict what can go wrong from day to day
Visibility	has quality contact and interactions with teachers and students.	 Makes systematic and frequent visits to the classroom Has frequent contact with students Is highly visible around the school

Note: This exhibit identifies the 17 Balanced Leadership practices that were not included in the ISLLC standards, along with the related areas of responsibility. For a complete list of the Balanced Leadership Framework responsibilities and practices, see the Appendix.

existing perspectives. This kind of change often leaves people feeling less competent and less confident about their work and their relationships. For individuals and/or groups, this can feel like a loss. Regardless of the "gain" that a change may represent for a school, or any other organization, when the stakeholders in the school perceive they are losing in terms of their competence, their identity, their relationships, or their sense of order, they may become resistant to the change. A change becomes second order for individuals or groups when they perceive that it implies these kinds of losses.

Exhibit 2 lists the characteristics of change typically viewed as first and second order. It is important to recognize that not all stakeholders experience change in the same way. Any change might be viewed as first order by one stakeholder group and as second order by another. This difference in perception can carry with it profoundly different responses from the two groups of stakeholders. Understanding this distinction is essential for effective change leadership. Principals, those who prepare them, and those who support them also need this understanding if they are to create the conditions necessary to initiate and sustain the changes needed in our schools.

School change involving the adoption of a standards-based grading system is an example of a change that might be viewed in very different ways by involved individuals or groups. In a standards-based grading system, grades are based on demonstrated student learning at the end of a grading period as opposed to averaging performance over the course of a grading period. Student learning is assessed based on criterionreferenced benchmarks, and standards-based report cards reflect student performance based on a rubric. A decision to implement a standardsbased grading system would most likely have second-order implications for most, but not all, stakeholders. For people early in the process of learning about standards and benchmarks, or for whom standards-based education conflicts with their values, standards-based grading would have second-order implications. On the other hand, for those accustomed to working with standards and benchmarks and for whom a standards-based grading system is consistent with their personal values, this change has first-order implications.

In addition to understanding the magnitude of change, knowing which specific leadership responsibilities are associated with leading change also is essential to effective change leadership.

Exhibit 2. Characteristics of Change with First- & Second-Order Implications

First Order	Second Order
An extension of the past	A break with the past
Within existing paradigms	Outside of existing paradigms
Consistent with prevailing norms, values	Conflicts with prevailing norms, values
Incremental	Complex
Linear	Nonlinear
Implemented with existing knowledge & skills	Requires new knowledge & skills
Implemented by experts	Implemented by stakeholders

Recognizing that McREL continues to engage in data collection and analysis about change leadership, the factor analysis specifically identifies responsibilities associated with leading changes with both first-order and second-order implications. All of the 21 leadership responsibilities are associated with change with first-order implications. However, seven responsibilities are positively correlated with leading change perceived as second order. Principals who participated in McREL's online survey (for further details, see the Appendix) who reported that they or their schools were engaged in change perceived as second order gave themselves high ratings on practices related to the following leadership responsibilities: change agent; flexibility; ideals/beliefs; intellectual stimulation; knowledge of curriculum, instruction, and assessment; monitors/evaluates; and optimizer (see Exhibit 3).

In addition to identifying seven responsibilities that positively correlate with leading change with second-order implications, McREL's factor analysis revealed four responsibilities that are negatively correlated with change perceived as second order (see Exhibit 4). Survey respondents who reported that they or their schools were engaged in second-order changes also gave themselves low ratings on practices used to fulfill the responsibilities of communication, culture, input, and order. In other words, principals viewed these responsibilities as declining when taking on the challenge of leading change with second-order implications.

In an increasingly high-stakes accountability environment, effective leadership of change is more valuable than ever. Principals are responsible for leading change initiatives that result in improved student achievement, which typically have second-order implications for most, but not all, stakeholders. This requires that principals develop the necessary knowledge and skills to lead change that may be perceived very differently from individual to individual or from group to group and use a balanced approach to leadership, in which they thoughtfully and skillfully

differentiate the use of research-based practices based on the implications of change. The seven leadership responsibilities positively associated with second-order change offer guidance for principals regarding the responsibilities that they must fulfill especially well to effectively lead change initiatives with second-order implications. In contrast, the four leadership responsibilities negatively associated with perceived second-order change remind principals to pay attention to responsibilities that may be difficult to fulfill by the principal alone, given the nature of and stress associated with such change.

What works when leading changes with firstorder implications may not be effective when leading changes with second-order implications. For example, when a change is perceived as second order by a majority of stakeholders, a supportive or facilitative approach is necessary. Because these people will need to acquire new knowledge and gain new skills, and because they may feel as though they are losing relationships or status, they will need time and support for learning, grieving, adjusting to, and then accepting changes. On the other hand, a more direct approach may be appreciated and effective for stakeholders for whom a change has first-order implications. For these people, because the change builds on existing knowledge, does not threaten their relationships or status, and is consistent with their values and beliefs, they may only need to be told that it is time to implement. In these cases, dedicating time and resources to help people adjust to the change is not necessary. For example, a slight adjustment in bus schedules would most likely be viewed as a change with first-order implications, whereas extending the school calendar would be viewed as a change with second-order implications. In short, in order to be effective leaders, principals must understand the different implications changes can have for their staff members and other stakeholders and skillfully adjust their leadership practices accordingly.

Exhibit 3. Balanced Leadership Responsibilities & Practices Positively Associated With Second-Order Change

Responsibility	Definition The extent to which the principal	Associated Practices
Change agent	is willing to and actively challenges the status quo.	 Consciously challenges the status quo Is comfortable leading change initiatives with uncertain outcomes Systematically considers new and better ways of doing things
Flexibility	adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.	 Is comfortable with major changes in how things are done Encourages people to express opinions that may be contrary to those held by individuals in positions of authority Adapts leadership style to needs of specific situations Can be directive or non-directive as the situation warrants
Ideals/beliefs	communicates and operates from strong ideals and beliefs about schooling.	 Holds strong professional ideals and beliefs about schooling, teaching, and learning Shares ideals and beliefs about schooling, teaching, and learning with teachers, staff, and parents Demonstrates behaviors that are consistent with ideals and beliefs
Intellectual stimulation	ensures that faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture.	 Stays informed about current research and theory regarding effective schooling Continually exposes teachers and staff to cutting-edge ideas about how to be effective Systematically engages teachers and staff in discussions about current research and theory Continually involves teachers and staff in reading articles and books about effective practices
Knowledge of curriculum, instruction, and assessment	is knowledgeable about current curriculum, instruction, and assessment practices.	 Is knowledgeable about curriculum and instructional practices Is knowledgeable about assessment practices Provides conceptual guidance for teachers regarding effective classroom practice
Monitors/ evaluates	monitors the effectiveness of school practices and their impact on student learning.	 Monitors and evaluates the effectiveness of the curriculum Monitors and evaluates the effectiveness of instruction Monitors and evaluates the effectiveness of assessment
Optimizer	inspires and leads new and challenging innovations.	 Inspires teachers and staff to accomplish things that might seem beyond their grasp Portrays a positive attitude about the ability of teachers and staff to accomplish substantial things Is a driving force behind major initiatives

Note: This exhibit identifies the Balanced Leadership responsibilities and practices found to be positively associated with perceived second-order change. For a complete list of the Balanced Leadership Framework responsibilities and practices, see the Appendix.

Exhibit 4. Leadership Responsibilities & Practices Negatively Impacted by Change Perceived as Second Order

Responsibility	Definition The extent to which the principal	Associated Practices
Communication	establishes strong lines of communication with teachers and among stakeholders.	 Is easily accessible to teachers and staff Develops effective means for teachers and staff to communicate with one another Maintains open and effective lines of communication with teachers and staff
Culture	fosters shared beliefs and a sense of community and cooperation.	 Promotes cooperation among teachers and staff Promotes a sense of well-being Promotes cohesion among teachers and staff Develops an understanding of purpose Develops a shared vision of what the school could be like
Input	involves teachers in the design and implementation of important decisions and policies.	 Provides opportunities for input from teachers and staff on all important decisions Provides opportunities for teachers and staff to be involved in policy development Involves the school leadership team in decision making
Order	establishes a set of standard operating principles and routines.	 Provides and enforces clear structures, rules, and procedures for students Provides and enforces clear structures, rules, and procedures for teachers and staff Establishes routines regarding the running of the school that teachers and staff understand and follow

Note: This exhibit identifies the Balanced Leadership practices found to be negatively associated with perceived second-order change. For a complete list of the Balanced Leadership Framework responsibilities and practices, see the Appendix.

The results of McREL's meta- and factor analyses included in the Balanced Leadership Framework add value to the use of the ISLLC standards for everyone interested in the impact of school-level leadership on student achievement. First, the findings offer an opportunity to maximize the use of the ISLLC standards by increasing

the utility of the standards, offering research-based guidance, and identifying those leadership responsibilities that should take primacy. Second, the findings extend the scope of the ISLLC standards by identifying 17 leadership practices that are not evident in the ISLLC standards and by offering additional insights into change leadership.

Recommendations for Policymakers

Based on McREL's analyses, we recommend that policymakers consider the following actions:

- Review and approve principal licensure and relicensure programs to verify that they adequately
 address the knowledge and skills needed by principals to engage in research-based practices. If
 your state has already adopted standards for preparation and licensure, review them for the
 specific responsibilities and practices correlated with student achievement. If your state has not
 yet adopted standards, consider doing so and look for evidence that they include research-based
 practices that are correlated with higher levels of student achievement.
- Ensure that administrator licensure and relicensure programs are taught by faculty with the knowledge and skills needed to teach research-based leadership practices. Approving programs based on standards that embed research-based practices is a critical first step in improving the quality and consistency of administrator preparation and licensure. The second important step is to ensure that higher education faculty members or others teaching in these programs have a deep understanding of the standards and research-based practices necessary to prepare school leaders for initial licensure and seasoned administrators for relicensure.
- Commit the resources necessary for high-quality, rigorous, and research-based professional
 development programs for principals. Not all states require ongoing professional development of
 administrators for relicensure. Establishing such a requirement, then providing the incentives
 and funding needed to implement it, sends a powerful message about the importance of
 continuous learning for school-level leaders and the use of research as the basis for their practice.
- Support the use of tools that allow practitioners to assess their use of research-based leadership practices. Feedback from both staff and supervisors can be a powerful motivator for professional improvement and focus the leader on the practices being used effectively along with those that need improvement. Specific feedback tools, in particular, 360-degree surveys, are used in business and industry for these purposes. Similar tools for principals are in development and need to be made available.
- Be aware of the changes initiated through policies and the implications of those changes for
 different stakeholders. Our explanation of the varying implications of change applies to
 policymakers as well as to principals. The implications of changes initiated through
 new policies will be first order for some and second order for others. Failing to recognize
 this possibility, and tailoring policy development and implementation strategies based on this
 possibility, may contribute to unnecessary resistance among those affected by policy changes.
- Collaborate with chief state school officers and other senior leadership to influence the
 conditions necessary to support change with second-order implications. The actions that
 principals take can influence student achievement. Their leadership will be amplified or
 moderated by the conditions within which they are working. Policies that focus the preparation
 of principals on standards suffused with research-based practices provide the support principals
 need to use these practices effectively and increase the likelihood that administrator preparation
 programs will be translated into improved school and student performance.

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Appendix: McREL's Balanced Leadership Framework: Research & Theory Background

McREL's Balanced Leadership Framework integrates findings from meta- and factor analyses on principal leadership conducted by McREL between 2001 and 2004. The Framework also integrates key concepts developed by McREL after an extensive analysis of the theoretical literature on leadership, change, and the adoption of new ideas.

Leadership meta-analysis. McREL's

leadership meta-analysis began in 2001 with a survey of nearly every study published since the early 1970s that purported to examine the relationship between school leadership and student achievement. From a total of more than 5,000 studies, 70 studies met the criteria for rigor, including using standardized test scores to measure student achievement and teacher perceptions (as opposed to leaders' self-evaluations) to measure principals' leadership abilities. Combined for the purpose of a meta-analysis, the 70 studies represent a sample size of 2,894 schools and approximately 14,000 teachers and 1.1 million students — the largest-ever sample for an examination of research on leadership practices.

McREL's meta-analysis resulted in three major findings that support the notion that school-level leadership matters in terms of student achievement. First, data from the meta-analysis found that principal leadership was significantly correlated with student achievement. The average effect size, expressed as a correlation, is .25. This means that a one standard deviation improvement in principal leadership is associated with a 10 percentile difference in student achievement. The second finding adds specificity and detail to the first

finding. Our meta-analysis identified 66 leadership practices required to fulfill 21 responsibilities that have statistically significant relationships with student achievement (see Exhibit 5).

The third major finding relates to the "differential impact" of leadership. In short, just as leaders can have a positive impact on student achievement, they also can have a marginal or, worse, a negative impact on achievement. Although the average impact of leadership on student achievement was .25, we found studies in which the impact was as high as .50 and others in which the impact was negative. Stated differently, in some studies, teachers rated principals high in terms of their leadership abilities, and student achievement in these schools was much higher than the average achievement across the metaanalytic study sample. In other cases, teachers rated principals high, yet student achievement in these schools was slightly lower than the average.

Although we recognize that the underlying causes of the differential impact of leadership can be interpreted in many ways, we posit that when school leaders identify and focus on the school and classroom practices that are most likely to enhance student achievement and when they understand the magnitude or "order" of change they are leading and adjust their leadership practices accordingly, their leadership practices are likely to positively influence student achievement. Conversely, when school leaders identify and focus on the wrong school or classroom practices, or when they miscalculate the implications of the change they are attempting to implement, their leadership practices can negatively affect student achievement.

Exhibit 5. Balanced Leadership Framework Responsibilities, Average r, and Associated Practices

Responsibility	Definition The extent to which the principal	Avg r	Associated Practices
Affirmation	recognizes and celebrates school accomplishments and acknowledges failures.	.25	 Systematically and fairly recognizes and celebrates accomplishments of teachers and staff Systematically and fairly recognizes and celebrates accomplishments of students Systematically and fairly acknowledges failures and celebrates accomplishments of the school
Change agent	is willing to and actively challenges the status quo.	.30	 Consciously challenges the status quo Is comfortable leading change initiatives with uncertain outcomes Systematically considers new and better ways of doing things
Communication	establishes strong lines of communication with teachers and among stakeholders.	.23	 Is easily accessible to teachers and staff Develops effective means for teachers and staff to communicate with one another Maintains open and effective lines of communication with teachers and staff
Contingent rewards	recognizes and rewards individual accomplishments.	.15	 Recognizes individuals who excel Uses performance vs. seniority as the primary criterion for reward and advancement Uses hard work and results as the basis for reward and recognition
Culture	fosters shared beliefs and a sense of community and cooperation.	.29	 Promotes cooperation among teachers and staff Promotes a sense of well-being Promotes cohesion among teachers and staff Develops an understanding of purpose Develops a shared vision of what the school could be like
Curriculum, instruction, assessment	is directly involved in the design and implementation of curriculum, instruction, and assessment practices.	.16	 Is involved with teachers in designing curricular activities and addressing instructional issues in their classrooms. Is involved with teachers to address assessment issues

Responsibility	Definition The extent to which the principal	Avg r	Associated Practices
Discipline	protects teachers from issues and influences that would detract from their teaching time or focus.	.24	 Protects instructional time from interruptions Protects/shelters teachers from distractions
Flexibility	adapts his or her leadership behavior to the needs of the current situation and is comfortable with dissent.	.22	 Is comfortable with major changes in how things are done Encourages people to express opinions that may be contrary to those held by individuals in positions of authority Adapts leadership style to needs of specific situations Can be directive or non-directive as the situation warrants
Focus	establishes clear goals and keeps those goals in the forefront of the school's attention.	.24	 Establishes high, concrete goals and the expectation that all students will meet them Establishes high, concrete goals for all curricula, instruction, and assessment Establishes high, concrete goals for the general functioning of the school Keeps everyone's attention focused on established goals
Ideals/beliefs	communicates and operates from strong ideals and beliefs about schooling.	.25	 Holds strong professional ideals and beliefs about schooling, teaching, and learning Shares ideals and beliefs about schooling, teaching, and learning with teachers, staff, and parents Demonstrates behaviors that are consistent with ideals and beliefs
Input	involves teachers in the design and implementation of important decisions and policies.	.30	 Provides opportunities for input from teachers and staff on all important decisions Provides opportunities for teachers and staff to be involved in policy development Involves the school leadership team in decision making

Responsibility	Definition The extent to which the principal	Avg r	Associated Practices
Intellectual stimulation	ensures that faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture.	.32	 Stays informed about current research and theory regarding effective schooling Continually exposes teachers and staff to cutting edge ideas about how to be effective Systematically engages teachers and staff in discussions about current research and theory Continually involves teachers and staff in reading articles and books about effective practices
Knowledge of curriculum, instruction assessment	is knowledgeable about current curriculum, instruction, and assessment practices.	.24	 Is knowledgeable about curriculum and instructional practices Is knowledgeable about assessment practices Provides conceptual guidance for teachers regarding effective classroom practice
Monitors/ evaluates	monitors the effectiveness of school practices and their impact on student learning.	.28	 Monitors and evaluates the effectiveness of the curriculum Monitors and evaluates the effectiveness of instruction Monitors and evaluates the effectiveness of assessment
Optimizer	inspires and leads new and challenging innovations.	.20	 Inspires teachers and staff to accomplish things that might seem beyond their grasp Portrays a positive attitude about the ability of teachers and staff to accomplish substantial things Is a driving force behind major initiatives
Order	establishes a set of standard operating principles and procedures.	.26	 Provides and enforces clear structures, rules, and procedures for teachers, staff, and students Establishes routines regarding the running of the school that teachers and staff understand and follow Ensures that the school is in compliance with district and state mandates
Outreach	is an advocate or spokesperson for the school to all stakeholders.	.28	 Advocates on behalf of the school in the community Interacts with parents in ways that enhance their support for the school Ensures that the central office is aware of the school's accomplishments

Responsibility	Definition The extent to which the principal	Avg r	Associated Practices
Relationships	demonstrates an awareness of the personal aspects of teachers and staff.	.19	 Remains aware of personal needs of teachers and staff Maintains personal relationships with teachers and staff Is informed about significant personal issues in the lives of teachers and staff Acknowledges significant events in the lives of teachers and staff
Resources	provides teachers with the material and professional development necessary for the successful execution of their jobs.	.26	 Ensures that teachers and staff have necessary materials and equipment Ensures that teachers have necessary professional development opportunities that directly enhance their teaching
Situational awareness	is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems.	.33	 Is aware of informal groups and relationships among teachers and staff Is aware of issues in the school that have not surfaced but could create discord Can predict what could go wrong from day to day
Visibility	has quality contact and interactions with teachers and students.	.16	 Makes systematic and frequent visits to classrooms Is highly visible around the school Has frequent contact with students

Note: The r correlations reported in this table were derived from McREL's leadership meta-analysis. For more information, see Balanced Leadership: What 30 Years of Research Tells Us About the Effect of Leadership on Student Achievement, 2003, by T. Waters, R. J. Marzano, and B. McNulty. Aurora, CO: Mid-continent Research for Education and Learning.

Leadership Survey and Factor

Analysis. Building on this foundation of research and theory, in 2003 McREL developed an online leadership survey for principals for several purposes. First, we sought to gather data about principals' practices and behaviors related to the 21 Balanced Leadership Framework responsibilities. We also sought information about the extent to which schools were engaged in first-order versus second-order change and the extent to which principals' leadership behaviors related to these types of change. Finally, we hoped to identify any relationships among the responsibilities and determine whether the set of 21 responsibilities should be reduced. Between July 2003 and May 2004, 652 principals throughout the United States participated in the survey.

Three key findings emerged from a factor analysis of the survey results that are particularly relevant for school leaders, policymakers, and leaders of administrator preparation and licensure programs. First, we found no inter-correlations among the leadership responsibilities that were strong enough to support collapsing or reducing the 21 responsibilities. In short, all 21 leadership responsibilities are important for the day-to-day business of schooling. Second, seven leadership responsibilities were positively associated with change perceived as second order. Finally, four responsibilities were negatively associated with second-order change.



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